Cisco Unified IP Phone 9971

Figure 1. Cisco Unified IP Phone 9971

Product Overview

The Cisco Unified IP Phone 9971 is an advanced collaborative multimedia endpoint that provides voice, video, applications and accessories. Highlights include Gigabit Ethernet, High-definition voice, high-resolution, fully-backlit, pixel-based color touchscreen display, desktop 802.11a/b/g Wi-Fi connectivity along with a new industrial design and user interface designed for simplicity and high usability. Accessories, bundled in selected cases and all sold separately, include the Cisco Unified Video Camera, Bluetooth handsfree profile support including support for the Jawbone ICON for Cisco Bluetooth Headset the Cisco Unified IP Color Key Expansion Module and Secure Digital Input Ouput (SDIO) slot for SDIO devices. Multimedia applications support includes XML and Java MIDlets.

Features and Benefits

- Newly developed industrial design and user experience designed for use with its VGA touchscreen display
- H.264 video support for 2-way standard definition calling with USB support for the Cisco Unified Video Camera
- Choice of 802.11 a/b/g desktop Wi-Fi connectivity or Gigabit Ethernet network connectivity and switch port available for a downstream PC
- Embedded Bluetooth radio and 2 USB ports for headsets and the Unified Video Camera
- Firmware support for XML and Java MIDlet applications

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Table 1. Features and Benefits

Feature	Benefits
Hardware	
Ergonomic Design	Highly usable and intuitive arrangement of lines, features and calls. Transfer, Conference and Hold appear on hard keys to reduce the number of presented softkeys to a maximum of 4 per call state.
Customization	This model can be ordered as Arctic White or Charcoal Gray. Handsets are available internationally as slimline (5oz, 140g) or standard (6oz, 170g) and can be mixed and matched between users within the same work environment to enable a feeling of customization and ownership among the users.
Display	VGA presentation for calling, video calling and applications. 5.6-inch (14 cm) graphical TFT color touchscreen display, 24-bit color depth, 640 x 480 effective pixel resolution, with backlight. Display also supports localization requiring double-byte Unicode encoding for fonts.
Ethernet	Internal 2-port Cisco Ethernet switch allows for a direct connection to a 10/100/1000 BASE-T Ethernet network through an RJ-45 interface with single LAN connectivity for both the phone and a co-located PC. System administrator can designate separate VLANs (802.1Q) for the PC and phone, providing improved security and reliability of voice and data traffic.
Desktop Wi-Fi Ethernet	As an alternative to wired Ethernet, this model supports an on-board Wi-Fi radio and antenna that enables connectivity to a wi-fi access point thereby saving on the labor costs of pulling Ethernet cables to every work location. Complete Wi-Fi specifications are included in Table 4.
Bluetooth	Mobility for headset users within 30 feet of their desktop to enable the freedom to go to the printer, a colleague's desk or nearby private location while on a call. The IP Phone 9971 supports the Hands-free and Headset Bluetooth profiles, including support for the Jawbone ICON for Cisco Bluetooth Headset.
USB	2 USB ports accelerate the usability of call handling and applications by enabling accessories such as the Cisco Unified IP Camera, wired and wireless headsets.
External Audio Ports	General Purpose Audio In and Audio Out ports enable a relaxed speakerphone experience over external speakers and microphone.
Secure Digital Input Ouput (SDIO)	Enables an additional option for portability and presentation of confidential data, video and sample applications.
6 lines expanding to 114 with 3 Unified IP Color Key Expansion Modules	The convenience of many speed dials or programmable features, or the necessity of following the activity of many lines. Up to 200 calls supported per device.
Buttons	6 feature buttons with state indicating LEDs 6 call session buttons with state indicating LEDs Applications, Directories, Voicemail Conference, Transfer, Hold Volume Up/Down Back-lit Mute, Speakerphone, Headset Back, End Call, 5-Way Navigation Pad
Accessories	
Unified IP Color Key Expansion Module	Available separately, enables advanced use of lines, speed dials and features.
Cisco Unified Video Camera	Available separately, enables 2-way video calling between phones or video conferencing through a media conference unit.
Cisco Unified Video Advantage Support	Alternatively to supporting the Cisco Unified Video Camera, the Cisco Unified Video Advantage camera and application (running on a PC) are also supported.
Headset Support	Integrated design & advanced, updateable firmware for Jawbone ICON for Cisco Bluetooth Headset which also works with all major mobile phone models. Also supports standard Bluetooth and USB headsets via the hands-free and headset Bluetooth profiles. Wideband analog headset support also provided via a dedicated RJ9 headset port on the rear of the phone.
Firmware	
New user experience	Advanced organization of lines, speed dials and programmable features separate from call appearances. Great for those who make few calls per day; better for those who handle dozens of calls per hour.
SIP Signaling	SIP interoperation with the call control and partner applications enables a rich unified communications solution.
Application Support	XML and Java MIDlet applications provided by Cisco's application development partners or customers' own development staff.

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Unified Communications Manager Support

- Cisco Unified Communications Manager version 7.1(3a)SU1 or later.
- Survivable Remote Site Telephony (SRST) version 4.3 or later.

Licensing

Phone licensing is dependent on the call control platform and its policies. For the Cisco Unified Communications Manager, the IP Phone 9971 requires 4 Device License Units (DLUs) or an Enhanced IP User Connect License for UCM release 7.1(5) or later. There are no special licence plus phone bundles for Tier II distributors. The IP Phone 9971 is not supported on non-Cisco third party call control systems.

Product Specifications

Table 2. Product Specifications

Protocols	SIP for signaling H.264 for video
Connectivity	10/100/1000 wired Ethernet network port plus switched PC port 802.11a/b/g wi-fi
Options	Arctic White or Charcoal Gray color Slimline (5oz, 140g) or Standard (6oz, 170g) handset
Language support	Arabic, Bulgarian, Catalan, Chinese (People's Republic of China), Chinese (Hong Kong), Chinese (Taiwan), Croatian, Czech, Danish, Dutch, English - plus localized prompts for the UK, Estonian, French, Finnish, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian, Polish, Portuguese (Portugal), Portuguese (Brazil), Romanian, Russian, Spanish (Spain), Slovak, Swedish, Serbian (Republic of Serbia), Serbian (Republic of Montenegro), Slovenian, Thai, Turkish
Physical dimensions (HxWxD)	9.2" (23.4 cm) x 10.33"(26.25 cm) x 1.56"(3.97 cm) In slab mode with the footstand removed.
Power	IEEE Power over Ethernet 802.3af and 802.3at supported, class 4. The IP Phone 9971 is compatible with both class 3 and class 4 IEEE PoE switch blades and supports both Cisco Discovery Protocol (CDP) and Link Layer Discovery Protocol - Power over Ethernet (LLDP-PoE)
Temperature range	
Operational Temperature	Temperature: 23℉ (-5℃) ~ 131℉ (55℃)
Non-Operational Temperature Shock	Temperature: -13℉ (-25℃) ~ 158℉ (70℃)
Temperature-Altitude (Operational)	Temperature: 140℉ (40℃) Ambient condition to 9843 ft (3,000 m)
Temperature-Altitude (Non-Operational)	Ambient condition to 15,000 ft (4,572 m)
Temperature-Humidity (Non-Operational)	Humidity: 90% ± 5% Relative Humidity
Non-Operational Hot Temperature (Storage)	Temperature: 158°F (70℃) ± 2°C
Non-Operational Cold Temperature (Storage)	Temperature: -40℉ (-40℃) ± 2°C
Quantity Shipped per Pallate	320 units

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SKU	Description	Weight: Hardware lb (kg)	Weight: Single Carton lb (kg)	Weight: Master Pack of 8 Cartons lb (kg)
CP-9971-C-K9=	Cisco Unified IP Endpoint 9971, Charcoal, Standard Handset	3.48(1.577)	4.55(2.065)	38.00(17.235)
CP-9971-CL-K9=	Cisco Unified IP Endpoint 9971, Charcoal, Slimline Handset	3.41(1.546)	4.36(1.979)	36.62(16.610)
CP-9971-W-K9=	Cisco Unified IP Endpoint 9971, Arctic White, Standard Handset	3.66(1.660)	4.62(2.094)	38.65(17.530)
CP-9971-WL-K9=	Cisco Unified IP Endpoint 9971, Arctic White, Slimline Handset	3.59(1.629)	4.56(2.067)	38.17(17.315)
CP-89/9900-HS-C=	Spare Handset for 8900 or 9900 Series, Charcoal, Standard	0.39(0.177)		
CP-89/9900-HS-CL=	Spare Handset for 8900 or 9900 Series, Charcoal, Slimline	0.32(0.146)		
CP-89/9900-HS-W=	Spare Handset for 8900 or 9900 Series, Arctic White, Standard	0.41(0.187)		
CP-89/9900-HS-WL=	Spare Handset for 8900 or 9900 Series, Arctic White, Slimline	0.34(0.156)		

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Table 3. Calling Features

Feature	Specifications
Calling Feature Support	• + Dialing • Abbreviated dialing • Adjustable ringing and volume levels • Adjustable display brightness • Agent Greeting/Whisper Coaching • Application Launch Pad • Auto-answer • Auto-detection of headset • Barge • Callback • Call forward • Call history lists • Call park • Call pickup • Call timer • Call waiting • Caller ID • Corporate directory • Conference • Direct transfer • Extension mobility service • Fast-dial service • Group call pickup • Hold • Intercom • Immediate divert • Join • Last-number redial • Malicious-caller ID • Message-waiting indicator • Meet-me conference • Music on hold • Mute • Network profiles (automatic) • On- and off-network distinctive ringing • OPickUp • Personal directory • Predialing before sending • Privacy • Redial • Ring tone per line appearance • Service URL • Shared line • Time and date display • Transfer • Visual Voice Mail • Voice Mail
Audio Codec Support	G.711a, G.711u, G.729a, G.729ab, G.722, iSAC and iLBC audio compression codecs.
Configuration Options	• Dynamic Host Configuration Protocol (DHCP) client or static configuration • Support for online firmware upgrades using Trivial File Transfer Protocol (TFTP) • Domain Name System (DNS) • HTTP Firmware Management

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Feature	Specifications
Network Features	• Cisco Discovery Protocol (CDP) • Link Layer Discovery Protocol Power over Ethernet (LLDP-PoE) • Transparent secure roaming • Provisioning of network parameters through DHCP • Switch Auto-Negotiation • VPN Client
Security Features	• Certificates • Image authentication • Device authentication • File authentication • Signaling authentication • Media encryption using Secure Real-Time Protocol (SRTP) • Signaling encryption using Transport Layer Security (TLS) Protocol • Certificate authority proxy function (CAPF) • Secure profiles • Encrypted configuration files
Provisioning and Manufacturing	• Cisco Unified Communications Manager Express Version Negotiation • Web server for configuration and statistics • QoS reporting: jitter, delay, dropped packets, and latency on a per-call basis • Real Time Control Protocol (RTCP) support and monitoring • Syslog

Table 4. Wi-Fi Features and Specifications

Feature	Specifications		
Protocol	IEEE 802.11a, 802.11b, and 802.11g		
Frequency band and operating channels	Uses IEEE 802.11d to identify band ranges and channels		
Support mode	IEEE 802.11a IEEE 802.11b/g Autosensing, IEEE 802.11b/g preferred over IEEE 802.11a Received signal strength indicator (RSSI) (default)		
Data rates	IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps	IEEE 802.11b: 1, 2, 5.5, and 11 Mbps	IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps
Nonoverlapping channels	IEEE 802.11a: Up to 23 (including radar channels) IEEE 802.11b/g: 3 (Japan uses 4) (Bluetooth 2.0 also makes use of the 2.4 GHz spectrum, so IEEE 802.11a is recommended when using Bluetooth 2.0)		
Wireless modulation	IEEE 802.11a: OFDM IEEE 802.11b: Direct sequence spread spectrum (DSSS) IEEE 802.11g: OFDM and DSSS		
Receiver sensitivity (typical)	IEEE 802.11a: 6 Mbps: -91 dBm 9 Mbps: -90 dBm 12 Mbps: -88 dBm 18 Mbps: -86 dBm 24 Mbps: -82 dBm 36 Mbps: -80 dBm 48 Mbps: -77 dBm 54 Mbps: -75 dBm	IEEE 802.11b: 1 Mbps: -96 dBm 2 Mbps: -95 dBm 5.5 Mbps: -90 dBm 11 Mbps: -87 dBm	v802.11g: 6 Mbps: -91 dBm 9 Mbps: -90 dBm 12 Mbps: -87 dBm 18 Mbps: -86 dBm 24 Mbps: -82 dBm 36 Mbps: -80 dBm 48 Mbps: -77 dBm 54 Mbps: -76 dBm

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Feature	Specifications		
Transmitter output power	IEEE 802.11a OFDM: 40 mW (16 dBm) 32 mW (15 dBm) 20 mW (13 dBm) 8 mW (9 dBm) 3.2 mW (5 dBm) 1 mW (0 dBm)	IEEE 802.11b CCK: 50 mW (17 dBm) 20 mW (13 dBm) 8 mW (9 dBm) 3.2 mW (5 dBm) 1 mW (0 dBm)	IEEE 802.11g OFDM: 40 mW (16 dBm) 32 mW (15 dBm) 20 mW (13 dBm) 8 mW (9 dBm) 3.2 mW (5 dBm) 1 mW (0 dBm)
Range **(stated ranges are from measured open-site range testing)**	IEEE 802.11a: 6 Mbps: 604ft (184 m) 9 Mbps: 604 ft (184 m) 12 Mbps: 551 ft (168 m) 18 Mbps: 545 ft (166 m) 24 Mbps: 512 ft (156 m) 36 Mbps: 420 ft (128 m) 48 Mbps: 322 ft (98 m) 54 Mbps: 289 ft (88 m)	IEEE 802.11b: 1 Mbps: 1,010 ft (308 m) 2 Mbps: 951 ft (290 m) 5.5 Mbps: 919 ft (280 m) 11 Mbps: 902 ft (275 m)	IEEE 802.11g: 6 Mbps: 709 ft (216 m) 9 Mbps: 650 ft (198 m) 12 Mbps: 623 ft (190 m) 18 Mbps: 623 ft (190 m) 24 Mbps: 623 ft (190 m) 36 Mbps: 495 ft (151 m) 48 Mbps: 413 ft (126 m) 54 Mbps: 394 ft (120 m)
	Ranges and actual throughput vary based on numerous environmental factors so individual performance may differ.		
Access point support	Cisco 500 Series Wireless Express Access Points Cisco 1000 Series Lightweight Access Point Cisco Aironet 1100 Series Access Point Cisco Aironet 1130 AG Series Cisco Aironet 1200 Series Cisco Aironet 1140 AG Series Cisco Aironet 1230 AG Series Cisco Aironet 1240 AG Series Cisco Aironet 1250 Series Cisco Aironet 1300 Series	Required versions: Cisco Wireless LAN Controller (lightweight) Minimum: Version 4.0.217.0 Recommended: Version 5.1.151.0 or later Cisco IOS® Software access points (autonomous) Minimum: Version 12.3(8)JEA Recommended: Version 12.3(4g)JA1 or later	
Wireless security	Authentication: Cisco Wireless Security Suite IEEE 802.1X Lightweight Extensible Authentication Protocol (LEAP) Authentication Extensible Authentication Protocol and Flexible Authentication with Secure Tunneling (EAP-FAST) Wi-Fi Protected Access (WPA) Versions 1 and 2: Personal and Enterprise Cisco Centralized Key Management (CKM)	Encryption: 40- and 128-bit static Wired Equivalent Privacy (WEP) Temporal Key Integrity Protocol (TKIP) and Message Integrity Check (MIC) Advanced Encryption Standard (AES)	
QoS	IEEE 802.11e and Wi-Fi Multimedia (WMM) Traffic Specification (TSPEC) Enhanced Distributed Channel Access (EDCA) QoS Basic Service Set (QBSS)		
Radar detection	Dynamic frequency selection (DFS) and transmit power control (TPC) according to IEEE 802.11h		

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Table 5. Video Features and Specifications

Feature	Specifications
Video standards	H.264/AVC
Frame rates	30 fps (maximum) using H.264/AVC for video
Frame or picture formats	SQCIF (128 x 96 pixels) QCIF (176 x 144 pixels) QVGA (320 x 240 pixels) SIF (352 x 240 pixels) CIF (352 x 288 pixels) VGA (640 x 480 pixels)

Ordering Information

Help customers understand all the components or parts they need to purchase in order to install and use the product. This section also provides a direct link to the Cisco Ordering Tool and lists part numbers for customer convenience.

To place an order, visit the Cisco Ordering Home Page. To download software, visit the Cisco Software Center.

Table 6. Ordering Information

Product Name	Part Number
Cisco Unified IP Phone 9971, Charcoal, Standard Handset, Configurable with Camera	CP-9971-C-K9
Cisco Unified IP Phone 9971, Charcoal, Slimline Handset, Configurable with Camera	CP-9971-CL-K9
Cisco Unified IP Phone 9971, White, Standard Handset, Configurable with Camera	CP-9971-W-K9
Cisco Unified IP Phone 9971, White, Slimline Handset, Configurable with Camera	CP-9971-WL-K9
Cisco Unified IP Phone 9971, Charcoal, Standard Handset, Spare	CP-9971-C-K9=
Cisco Unified IP Phone 9971, Charcoal, Slimline Handset, Spare	CP-9971-CL-K9=
Cisco Unified IP Phone 9971, White, Standard Handset, Spare	CP-9971-W-K9=
Cisco Unified IP Phone 9971, White, Slimline Handset, Spare	CP-9971-WL-K9=

Table 7. Spare Parts

Spare Handset for 8900 or 9900 Series, White, Slimline	CP-89/9900-HS-WL=
Spare Handset for 8900 or 9900 Series, White, Standard	CP-89/9900-HS-W=
Spare Handset for 8900 or 9900 Series, Charcoal, Slimline	CP-89/9900-HS-CL=
Spare Handset for 8900 or 9900 Series, Charcoal, Standard	CP-89/9900-HS-C=
Spare Handset Cord, White	CP-HS-CORD-W=
Spare Handset Cord, Charcoal	CP-HS-CORD-C=
Spare footstand for 8900 or 9900 Series, White	CP-89/9900-FS-W=
Spare footstand for 8900 or 9900 Series, Charcoal	CP-89/9900-FS-C=

Table 8. Accessories

Accessories include the Cisco Unified Video Camera, Jawbone ICON for Cisco Bluetooth Headset, the Cisco Unified IP Color Key Expansion Module and Locking Wall Mount Kits. The Cisco Unified Video Camera is offered at no additional hardware price when ordered with the configurable phone SKUs or with phone and camera bundles listed in Table 6.

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For more information about accessories, go to:

- Cisco Unified Video Camera for the IP Phones 9900 Series
- Jawbone ICON for Cisco Bluetooth Headset
- Cisco Unified IP Color Key Expansion Module

Cisco Unified Video Camera for the 9900 Series IP Phone, Charcoal	CP-CAM-C=
Cisco Unified Video Camera for the 9900 Series IP Phone, White	CP-CAM-W=
Jawbone ICON for Cisco Bluetooth Headset, Charcoal, Australia Power Cube, Spare	CP-ICON-HS-C-AU=
Jawbone ICON for Cisco Bluetooth Headset, Arctic White, Australia Power Cube, Spare	CP-ICON-HS-W-AU=
Jawbone ICON for Cisco Bluetooth Headset, Charcoal, Europe Power Cube, Spare	CP-ICON-HS-C-CE=
Jawbone ICON for Cisco Bluetooth Headset, Arctic White, Europe Power Cube, Spare	CP-ICON-HS-W-CE=
Jawbone ICON for Cisco Bluetooth Headset, Charcoal, North America Power Cube, Spare	CP-ICON-HS-C-NA=
Jawbone ICON for Cisco Bluetooth Headset, Arctic White, North America Power Cube, Spare	CP-ICON-HS-W-NA=
Jawbone ICON for Cisco Bluetooth Headset, Charcoal, United Kingdom Cube, Spare	CP-ICON-HS-C-UK=
Jawbone ICON for Cisco Bluetooth Headset, Arctic White, United Kingdom Cube, Spare	CP-ICON-HS-W-UK=
Cisco Unified IP Color Key Expansion Module, Charcoal	CP-CKEM-C=
Cisco Unified IP Color Key Expansion Module, White	CP-CKEM-W=
Locking Wallmount Kit for 8900 or 9900 Series, Charcoal	CP-89/9900-LWMK-C=
Locking Wallmount Kit for 8900 or 9900 Series, Arctic White	CP-89/9900-LWMK-W=
Locking Wallmount Kit for 8900 or 9900 Series and KEM, Charcoal	CP-89/9900-LK-K-C=
Locking Wallmount Kit for 8900 or 9900 Series and KEM, Arctic White	CP-89/9900-LK-K-W=

Table 9. Local Power Options: Cube and Regional Cords

The power cube is new for the IP Phones 8900 and 9900 Series, but the cords are the same cords as used with the 7900 series. Power Cube 4 supports up to 44W and is internationally rated for different power grids worldwide.

Product Name	Part Number
Cisco Unified IP Endpoint Power Cube 4: 48V; 0.917A; 47-63Hz; 100-240V~0.8A	CP-PWR-CUBE-4=
Asia Pacific	CP-PWR-CORD-AP=
Argentina	CP-PWR-CORD-AR=
Australia	CP-PWR-CORD-AU=
European Community	CP-PWR-CORD-CE=
China	CP-PWR-CORD-CN=
Japan	CP-PWR-CORD-JP=
North America	CP-PWR-CORD-NA=
Switzerland	CP-PWR-CORD-SW=
United Kingdom	CP-PWR-CORD-UK=

Cisco Services

Cisco Services integrates closely with CMO teams as an essential element of any technology solution. Please contact your Cisco Services marcom manager if you have not already received targeted services content blocks for integration. Please e-mail ca-marcom@cisco.com if you are not sure of the appropriate contact.

For More Information

For additional information on the Cisco Unified IP Phones 9900 Series, go to http://www.cisco.com/go/ipphones/9900 or contact your account representative.

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